

AMENDMENTS TO CLAIMS

Claims 1, 9-13 and 21-23 are currently being amended, and new claims 24-28 are being added. No claims are currently being canceled. All pending claims are reproduced below, including those that remain unchanged.

1. (Currently Amended) A method for classifying email messages, the method comprising:

providing multiple independent modules each of which is configured to analyze email messages;

receiving an email message;

using ~~each module of~~ a plurality of ~~different the independent~~ modules to determine a level of sameness of ~~a particular the received~~ email message with one or more prior email messages, wherein each module being used determines a level of sameness in a different manner than the other modules being used, and wherein ~~each module of~~ at least some of the modules is being used ~~are each~~ assigned a non-zero weight indicative of the module's performance level;

determining an overall level of sameness for the ~~particular received~~ email message by combining results of at least two of the plurality of ~~different independent~~ modules using the non-zero weights assigned to the modules;

evaluating the performance level for each of the ~~different independent~~ modules that were used to determine the level of sameness for the ~~particular received~~ email message;

comparing the performance levels evaluated for the ~~different independent~~ modules that were used to determine the level of sameness for the ~~particular received~~ email message;

adjusting the non-zero weights of at least two of the modules in response to comparing the performance levels, including increasing the non-zero weight of at least one of the modules and reducing the non-zero weight of at least another one of the modules; and

using the overall level of sameness determined for the ~~particular received~~ email message to classify the ~~particular received~~ email message into a category.

2. (Previously Presented) The method of claim 1, further comprising:
comparing the number of email messages classified in the category with a predetermined number; and
if the number of email messages is greater than the predetermined number then classifying the category as a first category type; else
classifying the category as a second category type.
3. (Original) The method of claim 2, wherein the first category type is bulk email.
4. (Previously Presented) The method of claim 2, further comprising:
accepting a signal from a user input device to indicate processing of email messages in a category.
5. (Original) The method of claim 4, wherein the processing includes preventing the email messages in a category from being delivered to a user.
6. (Previously Presented) The method of claim 1, wherein the category is commercial email.
7. (Original) The method of claim 1, wherein Bayesian analysis is used.
8. (Previously Presented) The method of claim 1, further comprising:
accepting a signal from a user input device to set a parameter; and
using the parameter to adjust a weighting.
9. (Currently Amended) The method of claim 1, wherein one of the plurality of independent modules being used analyzes word count in an email message.

10. (Currently Amended) The method of claim 1, wherein one of the plurality of independent modules being used analyzes similarity of text in an email message.

11. (Currently Amended) The method of claim 1, wherein one of the plurality of independent modules being used analyzes a similarity of sender addresses.

12. (Currently Amended) The method of claim 1, wherein one of the plurality of independent modules being used analyzes a similarity of network routing.

13. (Currently Amended) The method of claim 1, wherein one of the plurality of independent modules being used analyzes a similarity uses of a hash of information in an email message.

14. (Previously Presented) The method of claim 1, wherein a message classification in a bulk category includes a determination of whether the number of email messages in a category exceed a predetermined number, the method further comprising:

submitting email messages in the bulk category to analysis to determine the level of commercial text.

15. (Previously Presented) The method of claim 14, further comprising:
preventing messages with a predetermined level of commercial text from being sent to an intended recipient.

16. (Previously Presented) The method of claim 14, further comprising:
intercepting the email messages from being sent to an intended recipient;
collecting the intercepted messages for a period of time; and
determining whether the collected messages are bulk messages, and if so, submitting the email messages in the bulk category to analysis to determine a level of commercial text.

17. (Previously Presented) The method of claim 16, further comprising:

preventing messages with a predetermined level of commercial text from being sent to an intended recipient.

18. (Previously Presented) The method of claim 1, further comprising:
assigning a lower rating to a module with a low performance level.

19. (Previously Presented) The method of claim 1, further comprising:
assigning a higher weighting to a module with a high performance level.

20. (Previously Presented) The method of claim 1, further comprising:
preventing a module with a low performance level from being used in a subsequent determination of a level of sameness.

21. (Currently Amended) An apparatus for classifying email messages, the apparatus comprising

a processor for executing instructions included in a machine-readable medium, the machine-readable medium including:

one or more instructions for providing multiple independent modules each of which is configured to analyze email messages;

one or more instructions for receiving an email message;

one or more instructions for using ~~each module of~~ a plurality of ~~different the~~ independent modules to determine a level of sameness of ~~a particular the received~~ email message with one or more prior email messages, wherein each module being used determines a level of sameness in a different manner than the other modules being used, and wherein ~~each module of~~ at least some of the modules is being used are each assigned a non-zero weight indicative of the module's performance level;

one or more instructions for determining an overall level of sameness for the ~~particular received~~ email message by combining results of at least two of the plurality of ~~different independent~~ modules using the non-zero weights assigned to the modules;

one or more instructions for evaluating the performance level for each of the ~~different independent~~ modules that were used to determine the level of sameness for the ~~particular received~~ email message;

one or more instructions for comparing performance levels evaluated for the ~~different independent~~ modules that were used to determine the level of sameness for the ~~particular received~~ email message;

one or more instructions for adjusting the non-zero weights of at least in response to comparing the performance levels, including increasing the non-zero weight of at least one of the modules and reducing the non-zero weight of at least another one of the modules; and

one or more instructions for using the overall level of sameness determined for the ~~particular received~~ email message to classify the ~~particular received~~ email message into a category.

22. (Currently Amended) A machine-readable storage medium including instructions executable by a processor for classifying email messages, the machine-readable storage medium including:

one or more instructions for providing multiple independent modules each of which is configured to analyze email messages;

one or more instructions for receiving an email message;

one or more instructions for using ~~each module of~~ a plurality of ~~different the independent~~ modules to determine a level of sameness of ~~a particular the received~~ email message with one or more prior email messages, wherein each module being used determines a level of sameness in a different manner than the other modules being used, and wherein ~~each module of~~ at least some of the modules is being used are each assigned a non-zero weight indicative of the module's performance level;

one or more instructions for determining an overall level of sameness for the ~~particular received~~ email message by combining results of at least two of the plurality of ~~different independent~~ modules using the non-zero weights assigned to the modules;

one or more instructions for evaluating the performance level for each of the ~~different~~ independent modules that were used to determine the level of sameness for the ~~particular~~ received email message;

one or more instructions for comparing performance levels evaluated for the ~~different~~ independent modules that were used to determine the level of sameness for the ~~particular~~ received email message;

one or more instructions for adjusting the non-zero weights of at least in response to comparing the performance levels, including increasing the non-zero weight of at least one of the modules and reducing the non-zero weight of at least another one of the modules; and

one or more instructions for using the overall level of sameness determined for the ~~particular~~ received email message to classify the ~~particular~~ received email message into a category.

23. (Currently Amended) An apparatus for classifying email messages, the apparatus comprising:

means for providing multiple independent modules each of which is configured to analyze email messages;

means for receiving an email message;

means for using ~~each module of~~ a plurality of ~~different~~ the independent modules to determine a level of sameness of ~~a particular~~ the received email message with one or more prior email messages, wherein each module being used determines a level of sameness in a different manner than the other modules being used, and wherein ~~each module of~~ at least some of the modules is being used are each assigned a non-zero weight indicative of the module's performance level;

means for determining an overall level of sameness for the ~~particular~~ received email message by combining results of at least two of the plurality of ~~different~~ independent modules using the non-zero weights assigned to the modules;

means for evaluating the performance level for each of the ~~different~~ independent modules that were used to determine the level of sameness for the ~~particular~~ received email message;

means for comparing performance levels evaluated for the ~~different~~ independent modules that were used to determine the level of sameness for the ~~particular~~ received email message;

means for adjusting the non-zero weights of at least two of the modules in response to comparing the performance levels, including increasing the non-zero weight of at least one of the modules and reducing the non-zero weight of at least another one of the modules; and

means for using the overall level of sameness determined for the ~~particular~~ received email message to classify the ~~particular~~ received email message into a category.

24. (New) The method of claim 1, wherein the step of evaluating comprises using non-manual statistical analysis to compare the level of sameness determined by each of the used independent modules to a benchmark.

25. (New) The method of claim 24, wherein the step of adjusting comprises: increasing the non-zero weight of one or more of the modules that determine a substantially similar level of sameness as the benchmark; and

decreasing the non-zero weight of one or more of the modules that determine a substantially different level of sameness than the benchmark.

26. (New) The method of claim 1, wherein each determined level of sameness is an indication of a degree of certainty that the received email message is the same as one or more prior email messages.

27. (New) The method of claim 1, wherein at least one of the used independent modules determines a level of sameness of the entire received email message with the entire one or more prior email messages.

28. (New) The method of claim 1, wherein:
a first one of the provided independent modules is configured to analyze similarity of word counts of email messages;

a second one of the independent modules is configured to analyze similarity of text of email messages;

a third one of the independent modules is configured to analyze similarity of sender addresses of email messages; and

a fourth one of the independent modules is configured to analyze similarity of network routings of email message.